

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In *Bacillus Megaterium*"
By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

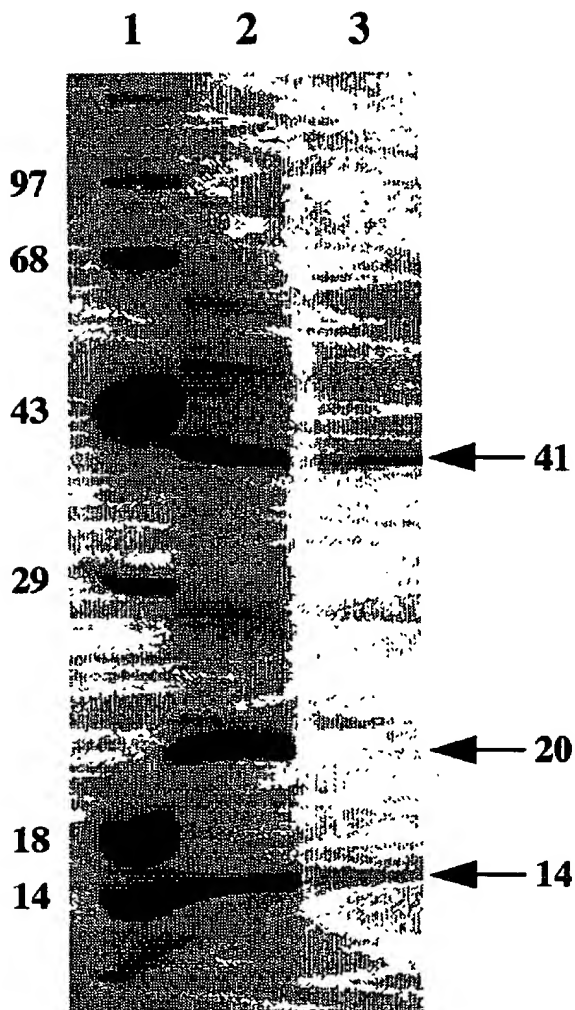


FIGURE 1



"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In *Bacillus Megaterium*"

By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

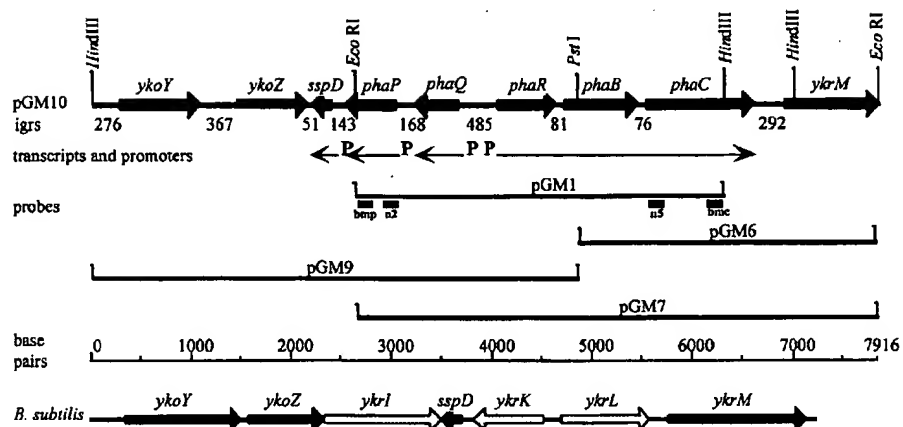


FIGURE 2A



*"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In Bacillus Megaterium"*

By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

	-35	-10	+1	Met	
TTCAAAAATAAACAAAGATTAGAATTGTTTATTTGGAAAACGTATTTATAAATAGTACATG...	ttgaca	tataat		275nt...	ATG
(SigmaA)					PhoR
TGTATTTGAAAGACCTGTTTTAAAGTGTGACAATTTTTCATCTAGGTGTAATTACACATA...	ttgaca	tataat		39nt...	TTG
(SigmaA)					PhoD
TTTAGCTCTTCTTCTTCTAAAAAGTCAAAAGAATCAAAAGAGGAAGAAAACGATTAAAGGA...	ctaaa	ccgatat		164nt...	ATG
(SigmaD)					PhoP
TAATAATAAAAAAGCCCAGCTTCTTGAAAGCTGGGCTTTTTTATACTTTCTTGCAAACATTACCA...				79nt...	ATG
PhoP					SspD
STOP					

FIGURE 2B



"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In *Bacillus Megaterium*"
By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

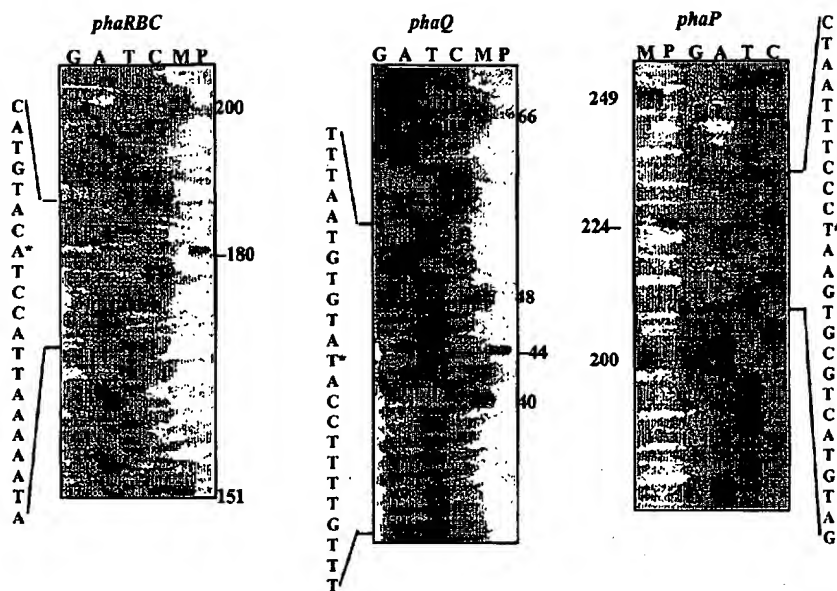


FIGURE 2C



"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In Bacillus Megaterium"

By: Maura C. Cannon, et al.

U.S.S.N. 09/479,040, filed January 7, 2000

Atty. Docket No. MOBT 212

B.meg. AIPYVQWEK-----DKS-----MPS-----YKSS-----FKRA----- 31
P.ole. SNKNNILQRQASENTLGLNPVIGRRKDLSARTVLRQAVRQPLHSAKHVAHFGLEKQNVLLGKSLAFSDRRRFNDPWSNNPLYRVLQTLAW 100

B.meg. -----ET-----TEAEVEVQIT-----P-----E-----TWKQNK 55
P.ole. RKELQDWIGNSDLSQDISRGQFVINLAEAMATNLSNPAAVKRFETGCKSLDGLSNLADLVNNGGMPQVNMDAFEVGKNLGTSEGVYRNDV 200

B.meg. AAYRHTVVKDNIKTHLLYALNSPILNTHGNVVELNRGFDVYLLIGTGLEDNMPDNTMYPKAKKVRTSKSPPSVTHN 155
P.ole. LEHQEADIEQVLAHLLVAPQINNFVHLSSEKSLAKCHRSQQTFISLRNITKAQREWISTYALKHVDAAITGSGKNNMAALSP 299

B.meg. ---TMTSIFSAINDLPKNIFMTPTFSDTGLYGALLDRYFMLLAVDTFGNIPTMDFGNKM-LKITNFGPYTILVDRSENQRFVESW 249
P.ole. ITCTALVGHYSAKCHN-KVNAITLLVVLITTMNQVALMEQILEAAER-HSYQAGVLGSEMAKVFAWMDNDLWNYGNNYLLQNEPPVFDL- 395

B.meg. MQHVAIGIFFAGEYRQWIRDFYQCKDNGEELANRKKVDERNIPANLNIASRDIIAMHVAALMDAVSSESTYKLOTSTVSVVFGCA-V 347
P.ole. F-ENNTITRLPA-SFHGDLIEMFKSLPITRPDALEACTPIDIQVLCDEYSLEGTNMLITVSCYRSAHLFGGKILFVLSNSLIQSILNIPGNP 491

B.meg. ETYPISG-----DEKDS-----K----- 362
P.ole. ARFMTGIRPGDPVAWQENATKHADSWWLHWVIGHSAGELEKAPTRLGNRAYAAGEASFQTYVIER 559

FIGURE 3



"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In *Bacillus Megaterium*"

By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

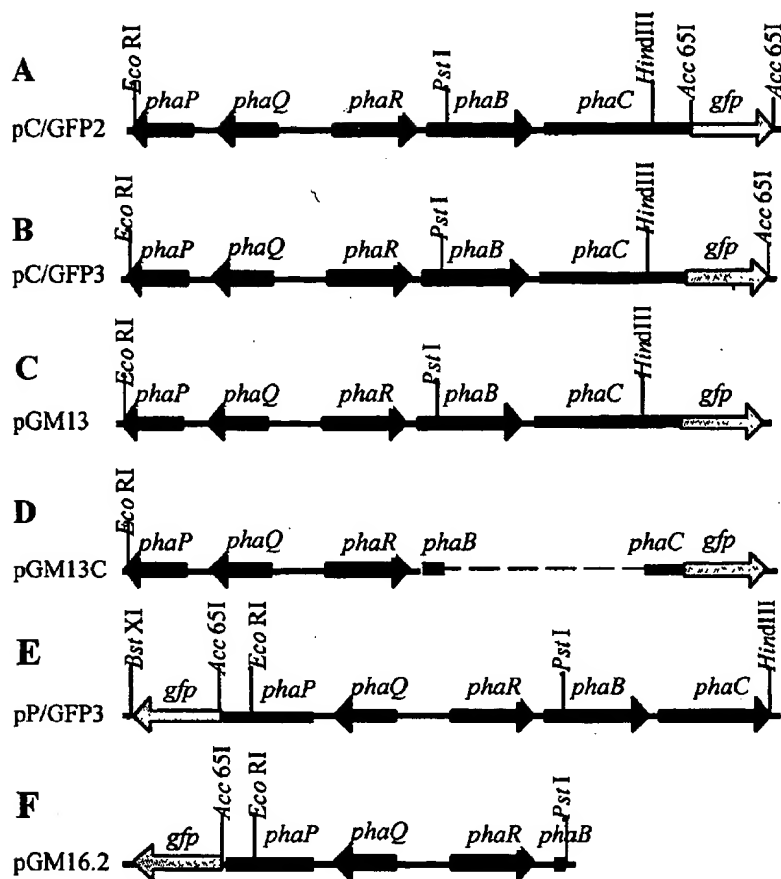


FIGURE 4



"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In *Bacillus Megaterium*"
By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

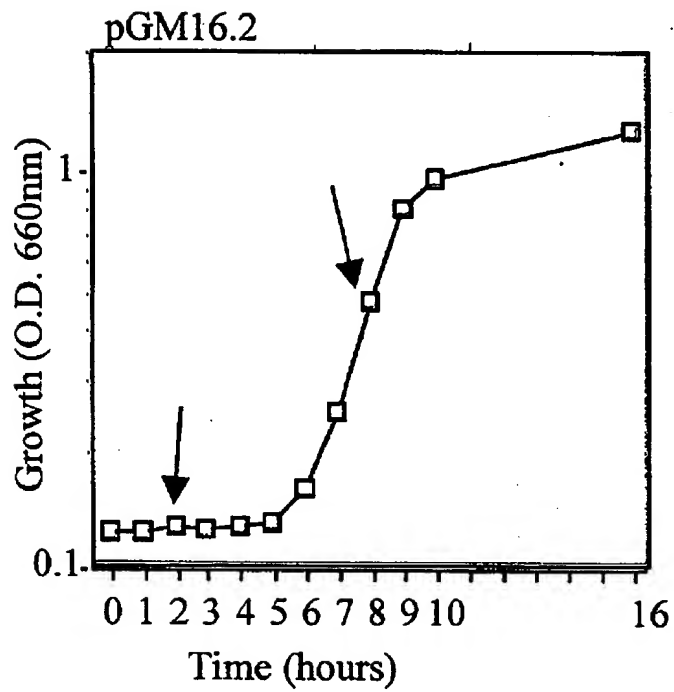


FIGURE 5



*"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In Bacillus Megaterium"*

By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

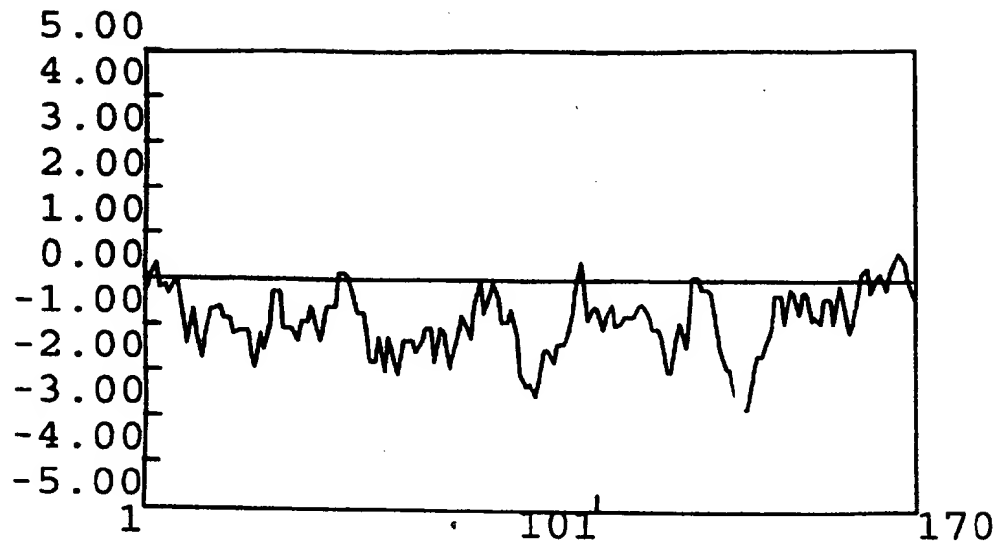


FIGURE 6



*"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In Bacillus Megaterium"*
By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

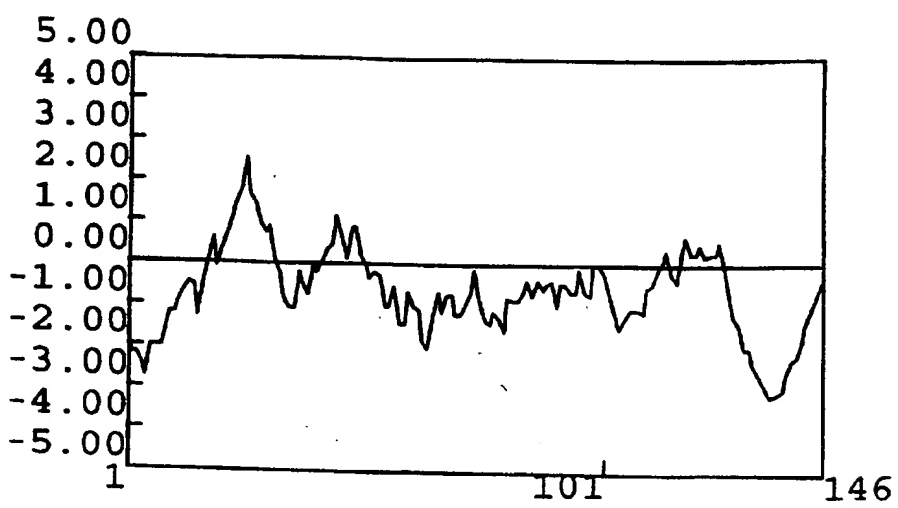


FIGURE 7



"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In *Bacillus Megaterium*"
By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

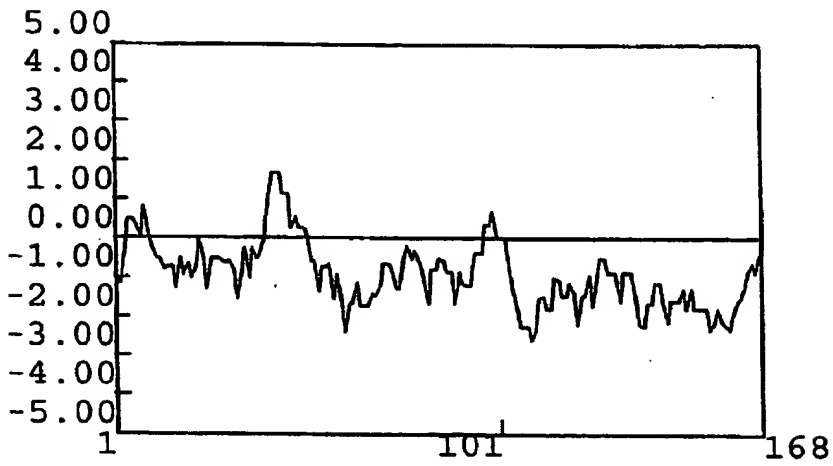


FIGURE 8



"Polyhydroxyalkanoate Biosynthesis Associated Proteins
And Coding Region In *Bacillus Megaterium*"

By: Maura C. Cannon, et al.
U.S.S.N. 09/479,040, filed January 7, 2000
Atty. Docket No. MOBT 212

PhaC_Bm	MAIPYVQEWELIKSMPSEYKSSARRFKRAYEIMTTEARPEVGLTPKEVINKNKAKLYR
PhaC_Tv	-----MRPIDIRPDKLAQEMLDYTSKLGQGMENLLNADAIDTGVSPKEAVYSEDKLVLYR
	.. * * * * * *
PhaC_Bm	Y-TPVKDNLHKTPILLVYALINKPYILDITPGNSLVEYLLNRGFDVYLLDWGTPGLEDSN
PhaC_Tv	YDTPAGVTPQKTPLLIVYALVNRPYMTDIQEDRSTIKGLLATGQDVYLLDWGYPDQADSA
	* * * * * * * *
PhaC_Bm	MKLDYIVDYIPKAAKVLRTSKSPDLSVLGYCMGGTMTSIFAAALNEDLPKKNLIFMTSP
PhaC_Tv	LTLDDYINGYIDSCVDYLCETHEVDQVNILGICQGGAFSLMYASLHPDK-VKNLVTMTVP
	. * * * * * * * * *
PhaC_Bm	FDFSDTG-LYGAFLLDDRYFNLDKAVDTFGNIPPEMIDFGNKMLKPITNFGPYVTLVDRS
PhaC_Tv	VDFKTPGNLLSAWVQN--VDIDLAVDTMGNIPEGELLNWTFLSLKPFSLTGQKYVNMVDM
	** * * * * * * * * * * * * * * *
PhaC_Bm	ENQRFVESWKLQKQWVADGIPPAGEAYRQWIRDFYQQNKLINGELEVRGRKVDLKNIKAN
PhaC_Tv	DDPDKVNFLRMEKWIIFDSPDQAGETFRQFTKDFYQKNGFINGGVKLGKKEIDLKNVDCP
	. * * * * * *
PhaC_Bm	ILNIAASRDHIAMPHQVAALMDAVSSEDKEYKLLQTGHVSVVFGPKAVKETYPISIGDWLE
PhaC_Tv	VLNIYALQDHLVPPDASKALNPWSAARTYTELAFFGGHIGIYVSGKAQKEVTPAIGKWLN
	. * * * * * * * *
PhaC_Bm	KRSK
PhaC_Tv	ERS-
	**

FIGURE 9



Proposed Pathway for Production of PHA C4/C6 Copolymer from Acetyl-CoA

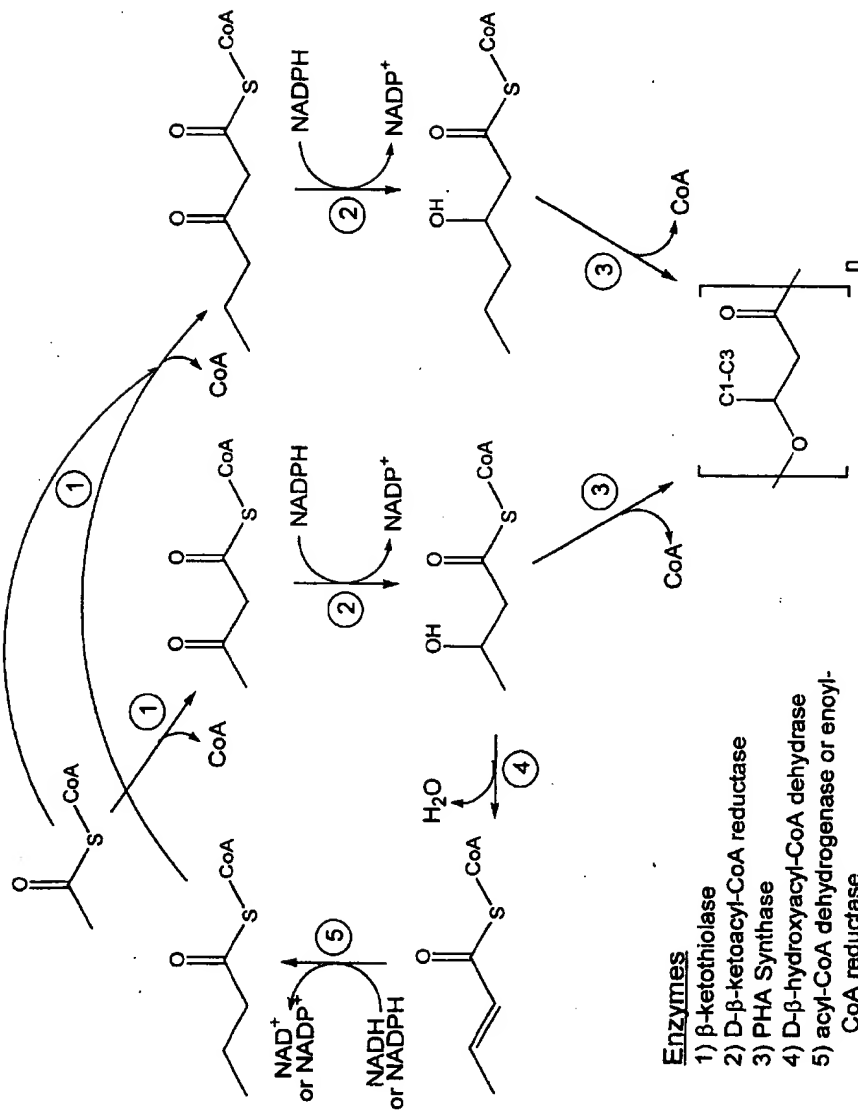


FIGURE 10